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ABSTRACT

The Education Amendments of 1976, Public Law 94-482, which revised the Vocational Education Act (VEA) of 1963, introduced major new requirements for the evaluation of federally funded vocational education programs. This paper describes the activities stimulated by these evaluation requirements and shows how evaluation results are used to revise and improve programs. However, since policy intentions--in this case, program revision and improvement--are not realized instantaneously, the paper examines a number of intervening steps in the implementation process before considering outcomes. Before the outcomes can be realized, for example, the message from Congress must be transmitted and implemented at federal, state, and local levels. Another purpose of this paper is to describe the way in which this message was transmitted through the Office of Education to the states and finally to the local level. (KC)

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Evaluating Vocational Education: The Federal Stimulus

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Vocational Education Study Publication No. 5

FOREWORD

The Vocational Education Study Project has already made clear its intention to publish papers, accounts of inquiries, and results of selected research projects emerging from its work. These publications will be in addition to the Interim Report on the Study, which the National Institute of Education has already transmitted to the President and to the Congress, and to the Final Report, which will be transmitted by September 31, 1981, as the Education Amendments of 1976 require.

Evaluating Vocational Education: The Federal Stimulus is the fifth publication from the Study, and one of several research efforts undertaken by members of the Vocational Education Study staff. It treats a key dimension of Federal vocational education legislation and throws light on the manner in which the evaluation requirements have been perceived and implemented by Federal, State, and local education agencies. It also sets forth the nature of the problems associated with realizing the evaluation objectives of Federal policy. This paper, it should be noted, makes use of data collected and analyzed by Ester Gottleib Smith and Nancy Holt of CRC Education and Human Development, Inc., and by Vernon L. Beuke, Carol VanDeusen Lukas, Nancy Brigham, Georgia S. Glick, and John P. Breen of Abt Associates, Inc., in connection with the research they had been doing for the Vocational Education Study.

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Introduction

The Education Amendments of 1976, P.L. 94-482, which revised the Vocational Education Act (VEA) of 1963, introduced major new requirements for the evaluation of federally funded vocational education programs. One of the reasons for the changes was a 1974 report by the General Accounting Office (GAO) on the implementation of Federal vocational education policy in seven States.[1] The results of this study, which was critical of the States, were presented to Congress during reauthorization hearings for the VEA and were substantiated by other studies and testimony. The exisiting legislation included the general requirement that Federal funds were to be distributed with "due consideration . . . to the results of periodic evaluations of State and local vocational education programs, services and activities in light of information regarding current and projected manpower needs and job opportunities. . . ." (P.L. 90-576, Section 1 ,(6)(A)). However, the testimony presented during the hearings indicated that funds were distributed with little consideration of evaluation results, in part because of "the lack of systematic program evaluation."[2]

One of the purposes of the Federal vocational education program is to assist States in offering programs of vocational education which are, among other things, "realistic in light of actual or anticipated opportunities for gainful employment. . . ." (from the Declaration of Purpose, Sec. 101). Despite this purpose, Congress was told that much of the present enrollment in

courses was concentrated in programs with only a peripheral relationship to labor market needs. Further, the GAO report concluded that enrollments in programs supported by Federal funds did not indicate a shift from traditional occupational programs to those designed to meet the needs of new and emerging occupations. It attributed this situation, in part, to the fact that evidence to demonstrate the need for a shift--for example, information from systematic follow-up on students showing job placement--was not available.[3] In the absence of such information, decisions on which programs to support were often made without considering the employment prospects of students from those programs. GAO further reported that the U.S. Office of Education (USOE)[4] was making only a slight effort to review vocational offerings in light of job opportunities.[5] Other evidence also suggested that, after a program has been introduced, local job opportunities generally played only a minor role in deciding whether or not it continued.[6] The GAO report recommended that Congress strengthen the evaluation requirements by requiring schools to take responsibility for following up their graduates and leavers. Congress acted on this advice, and greatly strengthened the requirements in the law so that evaluations could provide information leading to program revision and improvement at the local level.

One purpose of this paper is to describe the activities stimulated by these evaluation requirements and to show how evaluation results are used to revise and improve programs. However, since policy intentions--in this case, program revision and improvement--are not realized instantaneously, it is necessary to examine a

number of intervening steps in the implementation process before considering outcomes. Before the outcomes can be realized, for example, the message from Congress must be transmitted and implemented faithfully at Federal, State, and local levels. The degree to which the message is understood and the way it is acted upon at each level affects the likelihood that the intended outcomes will be realized. Thus, another purpose of this paper is to describe the way in which this message was transmitted through the Office of Education to the States and finally to the local level. These legislative requirements, together with the discussions of the issues reported in the House, Senate, and Conference Committee Reports, which illuminate what the Congress hoped to achieve, may be thought of as constituting a message to the Office of Education, the States, and localities. How it was first understood at the Federal level, then transmitted to the States, and finally applied at the local level are elements of a complex process that begins with legal requirements and ends with instructional programs in classrooms.

The Evaluation Requirements

The new evaluation requirements of the 1976 Education Amendments (Sec. 112) were intended to promote rational planning and the responsiveness of the vocational education system to changing labor markets. The most substantial of these requirements originated in the House Bill, which stipulated that States evaluate all

federally assisted programs on a regular basis and examine job placement rates and employers' opinions of graduates of vocational education programs.[7] They provide that:

> (A) each State shall, during the five-year period of the State plan, evaluate the effectiveness of each program within the State being assisted with funds available under this Act; and the results of these evaluations shall be used to revise the State's programs, and shall be made readily available to the State advisory council; and
>
> (B) each State shall evaluate, by using data collected, wherever possible, by statistically valid sampling techniques, each such program within the State which purports to impart entry level job skills according to the extent to which program completers and leavers--
>
> (i) find employment in occupations related to their training, and
>
> (ii) are considered by their employers to be well-trained and prepared for employment. . . . (Sec. 112(b)(1)).

The emphasis given in (B) to the employment success of program completers and leavers underscores the continuing congressional concern, dating back to the original Smith-Hughes Act of 1917, that federally supported vocational education should prepare students for participation in the labor force. According to the House Report, "The Committee has specified these two criteria to judge the effectiveness of these programs because in our opinion they show most clearly whether persons trained in vocational programs are showing the results of such training."[8] These criteria are appropriate only for students in "occupational" programs which prepare them for entry-level jobs. "Nonoccupational" programs, such as industrial arts, consumer and homemaking education,

and prevocational programs, are to be evaluated as well, according to (A) above, but criteria for evaluation of these programs are unspecified.

Purposes of Evaluation

The legislation envisions two purposes for evaluation: first, and most important, management and improvement of programs; and, second, national reporting. Further, the legislation, together with the House and Senate Reports, gives a good indication of the sort of evaluation findings that were needed and the decisions that would flow from them.[9] Congress intended that decisions on which programs to support with Federal funds be influenced by evaluation results, specifically results showing whether or not students from a given program were finding jobs in related fields and whether or not their employers were satisfied with them.[10] The Congress seemed to want to produce a scenario like the following: evaluation results would indicate which programs were successful in placing students; these findings, in turn, would indicate which skills were in demand, which would then indicate which programs to continue. The legislation does not imply that placement data are to be the sole determinants of the decision to continue or discontinue a program or that this is the only use to which evaluation data can be put. It does, however, seem to suggest that low placement rates for particular programs would act as red flags signalling the need for a closer look.

The legislation encourages enactment of this scenario in several places. For example, it requires that

Federal funds be distributed to eligible recipients on the basis of local applications that describe, among other things, "how the findings of any evaluations of programs. . .have been used to develop the program proposed in the application" (Section 106 (a)(4)(B)(ii)). In addition, the State's annual accountability report must "contain a summary of the evaluations of programs required to be conducted by section 112 and a description of how the information from these evaluations has been, or is being, used by the State board to improve its programs" (Section 108(b)(2)(C)).

National reporting, a second use of evaluation results called for by the legislation, deserves comment. Student placement rates are to be entered into the Vocational Education Data System (VEDS) and aggregated across localities and States to form a national picture (Section 163(a)(1)). The two uses may not always be compatible; information needed for one set of purposes may be different from that needed for another, as may the requirements for statistical rigor. For example, program improvement decisions at the local level can be based on fairly "dirty" or "soft" data, collected in a form not comparable across localities. On the other hand, considerable standardization is necessary for placement rate data, which are collected at the school level and aggregated successively at the district, the State, and national levels to provide a national report on the effectiveness of vocational education.

Reaction from the Field

State and local vocational education directors objected strenuously to the evaluation requirements. Their objections centered on using job placement, which they viewed as unduly narrow, as the major criterion of effectiveness. First, they argued, it does not adequately reflect the nature or goals of vocational education, which is a broad educational program, not just a training program. Second, vocational educators insisted that the criterion of job placement holds schools to an inappropriate standard. School systems should be held accountable for imparting certain knowledge and skills and for making certain that there is a good fit between what is taught and the jobs available. However, what jobs students actually take is determined by a host of economic and personal factors beyond the school's control. "Hold us accountable for employability, but not employment," is the way many vocational educators phrased the concern.

Beyond these two objections, vocational educators voiced a fear about the possible consequences of evaluating programs only in terms of employment and employers' satisfaction, especially if funding decisions flowed from the results. Easy-to-place students, they suggested, might be accepted for programs at the expense of those harder to place, such as members of minority groups, the disadvantaged, or women in nontraditional programs--in short, the very groups Congress most wanted to reach.

The Office of Education Interprets the Requirements

The Office of Education (OE) played an important role in seeing that States understood and were able to carry out Congress' message. It both explicated the provisions of the Act and offered assistance in carrying them out. Through regulations, policy memoranda, and the like, OE interpreted the provisions of the Act. An examination of the contents of these documents revealed the way in which the Congressional message was transmitted to the States.

The Office of Education interpreted the evaluation requirements through regulations issued October 3, 1977--one year after the Act was signed--and a policy memorandum issued April 24, 1979--one and one-half years later. Thus, it took the OE two and one-half years to get a full set of instructions to the States. In the meantime, the States were already implementing the legislation and, in some cases, had to change their procedures after receiving official guidance. Thus, the timing of guidance alone affected the orderliness and faithfulness of implementation of legislation.

The content of the guidance affected faithfulness of implementation in a more obvious way. With respect to content, the regulations, the first guidance from OE, extended the requirements of the Act substantially. While the statute referred only to federally supported programs, the regulations require that programs to be evaluated include those supported by Federal, State, and local funds. Furthermore, the regulations broaden considerably the dimensions along which the programs are to

be evaluated, in part in response to the objections from the field and from a belief that placement rates by themselves could give a false impression of program problems. It is important to note that the regulations give guidance on procedure only; the requirement in the legislation that evaluations be used to revise and improve programs is not developed. The interpretation does not suggest, for example, what type of information might be used or how it might be used to improve programs. The areas to be evaluated are:

a. planning and operational processes;
b. student achievement;
c. student employment success;
d. the effects of additional services, as measured by the suggested criteria under (a),(b), and (c), that the State provides to special populations.

Within each area, the regulations also suggest criteria to be used (e.g., wage rates and duration of employment) as indicators of student employment success, as shown in Table 1.

Since the regulations include student employment success as just one of four sets of criteria against which programs should be measured, they might seem more acceptable to vocational educators than would a provision requiring evaluation on the basis of student employment alone. As a practical matter, however, the regulations have been a source of dissatisfaction. State administrators argue that they do not have the resources to implement all of the evaluation requirements, and they are not

Table 1

SPECIFICATIONS IN THE REGULATIONS OF EVALUATION BY STATE BOARD[11]

The State board shall, during the five-year period of the State plan, evaluate in quantitative terms the effectiveness of each formally organized program or project supported by Federal, State, and local funds. These evaluations shall be in terms of:

(a) Planning and operational processes, such as:

(1) Quality and availability of instructional offerings;
(2) Guidance, counseling, and placement and follow-up services;
(3) Capacity and condition of facilities and equipment;
(4) Employer participation in cooperative programs of vocational education;
(5) Teacher/pupil ratios; and
(6) Teacher qualifications.

(b) Results of student achievement as measured, for example, by:

(1) Standard occupational proficiency measures;
(2) Criterion-referenced tests; and
(3) Other examinations of students' skills, knowledge, attitudes, and readiness for entering employment successfully.

(c) Results of student employment success as measured, for example, by:

(1) Rates of employment and unemployment;
(2) Wage rates;
(3) Duration of employment; and
(4) Employer satisfaction with performance of vocational education students as compared with performance of persons who have not had vocational education.

(d) The results of additional services, as measured by the suggested criteria under paragraphs (a), (b), and (c) of this section, that the State provides under the Act to these special populations:

(1) Women;
(2) Members of minority groups;
(3) Handicapped person;
(4) Disadvantaged persons; and
(5) Persons of limited English-speaking ability.

certain what the Office of Education regards as acceptable procedures, particularly for assessment of student achievement and for evaluation of the effects of additional services.

The new requirements left the States in sore need of assistance. The States were faced with the task of developing or refining procedures and instruments for their program reviews, as well as developing or refining follow-up surveys to assess student placement. Ready-made instruments to assess student achievement existed for only few program areas. And, this type of test development was too expensive, time consuming, and complex for most States to undertake. Hence, a void remains. The Office of Education responded in several ways to the need to implement new, complex, and costly procedures--among them, sponsoring conferences and funding several "how to" projects[12]--but States still felt a need for assistance.[13]

The second major interpretation came in the form of a policy memorandum dated April 24, 1979, issued after more than a year and one-half of internal struggle and debate within OE over how prescriptive to be.[14] This memorandum was written to help States devise evaluative schemes that would permit valid aggregation at the national level. The memorandum did four things: (1) it defined the term "program" (the entity to be evaluated); (2) it permited sampling of programs; (3) it encouraged States to adopt a cyclical pattern of evaluation; and (4) it promised that OE would not aggregate into national summaries either program review data or results of student achievement, although it would review and summarize results to show a national trend.

The specifications in the memorandum flow more from a concern with being able to provide a national picture than from a concern for program improvement. The section which gives States permission to evaluate a sample of programs within the five-year period of the State plan illustrates this point most clearly. The memorandum states: "Each of the six-digit code instructional programs must be evaluated within the period covered in the approved Five-year Plan. But if a State is operating 100 auto mechanic programs (a six-digit code) throughout the State, it may design a representative sample of such programs...."[14]

Federal administrators believed that, to make the evaluation process workable, sampling was essential in large States with many programs. However, in specifying a sampling unit, OE has affected the types of program revisions that are possible. In so doing, it has clearly illustrated that the the methods, degree of rigor, and information needed may not be the same for all evaluation uses. A national picture made up of placement rates from a sample of programs is perfectly acceptable. But the method may not be perfectly acceptable for making program revisions. For one thing, revisions can be made only in the programs in the sample. Some programs may never be evaluated, even over the course of five years. Choosing a program rather than a school as the entity to be evaluated may mean that school-wide services are overlooked. Some states now choose the school or district as the entity to be evaluated and pose questions about the availability and utilization in the planning process of information related to student and community interests and needs and job market demand. These

questions pertain to a planning process which is school-wide and not program specific. Similarly, efforts to eliminate sex role stereotyping or to mainstream handicapped students or to provide counseling are done school-wide, not program by program. Information on these activities--which certainly may suggest constructive ways to revise the program--may be better collected by sampling schools.

The States Implement the Requirements

Before the 1976 Amendments, evaluation of vocational education programs in most States was done on an informal and unsystematic basis. Few, if any, States had evaluation procedures as complex or comprehensive as those described in the regulations. Nevertheless, pieces of the evaluation system envisioned by the regulations were in place. For example, most States reviewed local programs, although often not as part of a formal program evaluation. Student achievement was measured at the local level by teachers and, for some occupations (e.g., practical nursing), by State licensing or certification examinations. In many States, student placement data were collected, again often by individual teachers and not in a manner rigorous enough to yield reliable and valid results. When the 1976 legislation passed, States began to draw together and systematize many of these procedures.

NIE examined the States' response to the evaluation requirements at two points--the spring of 1978,[15] and the 1979-80 school year.[16] In the spring of 1978, information was collected for all States from written

descriptions of procedures, where they existed, and from personal interviews with State evaluators at a conference on evaluations sponsored by OE's Bureau of Occupational and Adult Education (BOAE). In the 1979-80 school year, information was collected in conjunction with case studies conducted in 15 States.

Implementation as of Spring 1978

By the spring of 1978 (when the regulations had been out for approximately six months but the policy memorandum had not yet appeared), work was well underway in most States. Evaluation procedures were being extended and, in some cases, developed, in accordance with the regulations, but States were overwhelmed at the prospect of implementing them. Not only were the procedures given in the regulations detailed, complex, and costly to implement, but during the first year no Federal money was appropriated (under Sec. 102(d)) for this purpose. Developmental work was, therefore, proceeding entirely at State expense.

Of the four categories specified by the regulations--planning and operational processes, student achievement, student employment success, and services to special populations--most effort by the spring of 1978 had gone into systematizing reviews of planning and operational processes and assessing student placement, an aspect of student employment success. Reviews of planning and operational processes, or "program reviews" as they are usually called, were being conducted in 13 States and being revised in another 37. Assessments of student placements, or student follow-up, were being done in 20

States and being revised or developed in another 25. Far less attention was being given to the systematic statewide assessment of student achievement because this procedure requires some development of instruments. Almost every State, therefore, decided to continue for the time being with assessment by teachers and to wait and see what other States would do.

Implementation as of School Year 1979-80

By school year 1979-80, the developmental work on program review procedures and follow-up had been completed in most States. Many States were then faced with the task of compressing their program evaluations into the last three years of the five-year cycle of the legislation. The most consistently implemented category in the 15 case-study States was a program review of planning and operational processes, typically involving a "self-evaluation" by the school and an on-site visit by an external team. In only 2 of the 15 States were program reviews still being conducted by individual discipline specialists, rather than as part of a coordinated, statewide process. This high level of implementation was not surprising since the program review process fit comfortably with the technical assistance role which State education agencies were accustomed to playing with local agencies. The usefulness of reviewing planning and operational processes was well established, and the monitoring of local programs was not new. What the 1976 Amendments did was to cause States to become more systematic in this undertaking and to expand reviews to address some new issues.

Follow-up of students to ascertain job placement was the next most firmly implemented evaluation activity. Here again, the utility of the procedure was generally established and the procedure itself often was in place, at least informally, prior to Federal legislation. The legislation--both the evaluation provisions in Sec. 112(b) and the requirement that these data be included in the Vocational Education Data System--provided the stimulus for systematizing the activity at a statewide level. By the school year 1979-80, 12 of the 15 case-study States had in place a statewide system of reporting; in the remaining 3 States, such a system was still under development. While the actual collection of data was generally a local responsibility, State agencies often facilitated the process by providing forms and, in many cases, the names of the students to be followed up.

Most of the States follow up both completers and leavers, as required by the Act. However, there are serious practical difficulties in gathering accurate and reliable data which are consistent across districts. These difficulties are compounded by administrators' lack of conviction that such standardized follow-up data are necessary or appropriate and by the lack of Federal funding to ease the burden which the requirements place on State and local resources.

Formal follow-up data on employers' satisfaction are collected much less consistently than data on student placement. Approximately half of the case-study States do not have a statewide employer follow-up procedure at both the secondary and postsecondary levels. Vocational educators are less inclined to see employer follow-up as

an important and necessary indicator of vocational education effectiveness than they are student follow-up; nor are the data required for VEDS. At least one of the case-study States does not plan to survey employers because it has data which show that the employers' opinions are highly correlated with students' reports of employment success. Given this strong relationship, the State argues, separate measures of employers' satisfaction are duplicative. In those States which do collect employer follow-up data, poor response rates are an even bigger problem than they are for student follow-up data.

Student achievement is generally regarded as an important index of program effectiveness. Nevertheless, it is generally believed that collecting this information is best carried out locally by individual teachers, rather than uniformly on a statewide basis. Before enactment of the 1976 legislation, none of the 15 States required statewide reporting of student achievement data, and State responsibility was seen as the monitoring of local activity. However, in response to the legislation, most of the 15 States have tried to systematize the assessment of student achievement to some extent. For example, some States, individually and with others in consortia, are working to develop occupational proficiency standards and criterion-referenced curricula for vocational programs. The process is far from completed, for it is complex, time-consuming, and rife with technical difficulties. Some States fear that statewide achievement testing or proficiency criteria would bring uniformity and regimentation in curricula.

Less attention has been given to the fourth requirement laid down by the regulations--evaluating the results of additional services to special needs populations. The program review process typically examines the attention given to special needs populations, but focuses on access to, not on the results of, vocational programs and services. Some States ask, for example, whether supplemental services are provided to handicapped and disadvantaged students and whether instructional materials are nondiscriminatory in terms of sex, race, or ethnic origin. A few States have education staff members responsible for special needs populations and sex equity participate in the program review teams. Other States argue that the additional services to special populations are automatically included in the regular evaluation procedures, and that no special attention is, therefore, needed.

Overall, however, States are engaging in a considerable amount of evaluative activity. There is great variation in its scope and depth, but the States are demonstrating a strong commitment to and a significant investment in fulfilling this requirement.

The Use of Evaluation Results

Congress intended that evaluation results be used to revise and improve programs. However, the way in which they are used may vary, as do the types of improvement they suggest. For example, the action suggested by a finding that equipment is out-of-date will differ from that suggested by a finding that students are not getting jobs. Likewise, the use of findings at the local level

might differ from that at the State level, and both may differ from use at the Federal level. In any case, evaluation findings are intended to be used, and it is important to find out whether they are, and if so, by whom and in what way.

When States were asked directly in the spring of 1978 why most evaluations were being done, 32 cited program improvement as a reason, although 9 States said the main reason they were doing the evaluation was simply to comply with a regulation. Thus, the overwhelming majority of State officials saw evaluative findings linked to program improvement even at an early stage of implementation. However, the in-depth look in 15 States during the next school year (1979-80) showed that the uses of evaluation results varied among the four evaluation categories, much as implementation did, as the following findings demonstrate.

The most thoroughly implemented activity was program review; it was also the activity whose results were most used. In fact, most corrective action came in response to findings from reviewed programs. In contrast, data on student achievement, on the results of services to special populations, and, in many cases, on employers' satisfaction generally were not available and therefore could not be used by the State agency for program improvement or other purposes.

Because results of program reviews were frequently used, it is important to examine their content and to understand the way in which their results were used. The content of program reviews paralleled, in most cases, the

type of information that would interest an accrediting team. Topics regularly covered include quality of facilities, equipment, and curriculum, whether instructors were certified, and whether guidance and counseling services were available. Only a few States inquired into topics that are major Federal concerns, such as access of women and other special populations to programs, whether labor market data or student placement data inform local planning, and the like. Getting these sorts of topics into program reviews would be one way of encouraging greater attention to Federal concerns.

The action taken by the States to correct weaknesses uncovered in the program review was an important step in ensuring that improvement occurs. The program review was also an important transaction between the State and local school districts and one which afforded the States an opportunity to ensure that LEAs be attentive to the topics the State believed were important. If the State embraced Federal priorities, these would be conveyed to locals during the program review. The State could communicate, through program review, Federal concerns to the locals, and, through monitoring, they could offer technical assistance in responding to these concerns.

After the review, the State informed each district or institution of the deficiencies or weaknesses found by the review team. All of the States offered technical assistance to local agencies in improving programs. Beyond that, however, States varied considerably in the means by which they oversaw the changes dictated by the review and in the sanctions which they imposed if corrective action was not taken. In some States, the

implementation of changes was left to the discretion of the school district. Other States had more formal procedures involving requirements for corrective action, plans, and later visits from State staff to monitor the implementation of the changes. The ultimate sanction for failure to take corrective action was the threat of withholding program approval or Federal funding. However, most States were extremely reluctant to use this. They preferred to continue working with the district in a supportive way and to encourage program improvement.

Data on student placement were used far less frequently than program review data. For the most part, States merely aggregated placement rates across districts and passed them to the Federal level as part of VEDS. Generally, programmatic decisions were not made on the basis of placement rates. Only five of the 15 States have made this data available for use in the program review process and in planning. One of these States, for example, produced for each program in each district a printout of student placement data from the previous year together with enrollment and labor market projections to be used in local planning.

The preceding discussion deals with use of evaluation results at the State level. Systematic data across States about use at the local level are not available, but there is information from one recently completed study for the State of Illinois.[17] This study sought to learn from a large number of LEA administrators (609 were surveyed, 307 responded) what evaluation activities were initiated and how the results were used. Fully 73% of the respondents indicated that they

conducted evaluations because of an interest in improving programs. However, 37% of the respondents said they were conducting evaluations primarily to "meet State requirements." The evaluation findings were used in a variety of ways. "Making changes in curricula" (67%), "informing administrators" (61%), and "staff development" (51%) were uses most cited, while "discontinuing programs" (29%) and "recruiting students" (31%) were the least cited. It does not seem that decisions on which programs to continue or discontinue were based on evaluation findings, either at the State level or locally, at least within Illinois.

Conclusions and Policy Implications

The evaluation provisions in the 1976 Amendments to the Vocational Education Act are characterized by the facts that they require (1) specialized, technical knowledge and procedures and (2) new activities and, consequently, new competance. A number of other requirements in the Vocational Education Act--funding provisions, for example--and in other statutes--evaluation provisions in Title I of the Elementary and Secondary Education Act (ESEA), for example--also have these characteristics. Thus, the implementation of these evaluation requirements illustrates points about implementation in general. The findings presented in this paper lead to conclusions which have implications for the implementation of any statutory provisions of a similar character, as well as for the effects that the evaluation requirements of the Vocational Education Act were expected to produce.

Four Conclusions Concerning Implementation

The first conclusion is simply that the message embodied in the regulations and policy memorandum is different from that in the legislation; that is to say, the message changed during transmission. The discrepancy between scale of activity suggested in the Act and in the regulations is enormous. The Office of Education, through regulations, gave the States a message which was not contrary to but broader than that pointed to in the legislation. The dimensions along which programs were to be evaluated have been expanded from two narrow areas in the Act--student placement and employer satisfaction-- to four broad areas in the regulations--review of planning and operational processes, student acheivement, employment success, and services to special populations. The notion that evaluations are to be used was not reinforced in either the regulations or the policy memorandum.

The second conclusion is that the evaluation requirements stimulated much activity. Implementation has been uneven across and within States, but States are demonstrating a strong commitment to and investment in these requirements. States also differ in their ability to implement the evaluation requirements. Even more pronounced are the differences within a given State in its ability to respond to the four dimensions of evaluation stipulated in the regulations. Reviews of planning and operational processing are the most fully developed evaluative procedures, but most States are moving toward implementation of a student follow-up system. States are having the most difficulty with assessment of student achievement, because appropriate assessment in-

struments are not available for many courses or programs. States have made limited progress toward being able to assess the effects of programs on special needs groups.

The third conclusion is that even if full implementation were to occur by the desired time, it is questionable whether the intention of Congress in introducing evaluation requirements would be realized. Virtually lost in the procedural activities at both the Federal and State levels was the fact that Congress wanted evaluation results used chiefly to revise and improve programs. Yet the emphasis at the State level was on getting systems in place to conform to the regulation and less on the use to be made of the results. This reaction is also not surprising given the fact that the messages from the Federal level encourage the emphasis on procedure. For example, the regulations from the Office of Education consist only of procedural requirements and do not make explicit the array of benefits that might flow from compliance. The message about utility, about evaluation results being used to revise programs, was not reinforced by the Office of Education and was not emphasized by the States, which merely tried to implement the procedures as quickly as possible.

The fourth conclusion is that despite the considerable amount of movement, States may not fully meet the requirements in the regulations by the next reauthorization period, when performance will be reviewed. The prime reason for this is that change takes time. During two and one-half years that it took the Office of Education to get the full set of instructions to the

States, the States, had to search for and/or develop procedures and instruments, and then, in some cases, revise procedures, as new instructions came from the Office of Education. Because of the complexity of the regulations and because most States were not engaging in rigorous evaluations when these regulations were issued, it will take several years before evaluation procedures are developed and implemented by most States. Thus, it is safe to predict that some States will not be able to meet fully the requirements in the five years from reauthorization to reauthorization.

The story of implementation of the evaluation requirements is probably typical of the problems associated with the implementation of similar provisions in Federal grant-in-aid legislation. The distance from the Capitol to the classroom is great, and there is much opportunity for distortion of intent in transmission between. One can certainly find some instances to the contrary--instances of very faithful interpretation of statutory provisions at the Federal and State levels. One can even find instances of interpretation bringing practice more in line with legislative intent, if not language. However, the opportunities for misunderstanding are so numerous that some distortion is almost inevitable at some level. The timing and the unevenness of the implementation at the State and local levels is also to be expected with requirements like those pertaining to evaluation, which deal with a technical topic and which call for a considerable amount of change.

The Effects of The Evaluation Requirements

In enacting evaluation provisions with student placement and employer satisfaction as the criteria against which program success was to be measured, Congress was reacting to findings from the GAO report and elsewhere that vocational offerings were not in line with labor market demand. The legislation intended to specify indicators of labor market demand as criteria for evaluation. Data on these indicators were to be used as a basis for deciding which programs to add, drop, or maintain.[18] The legislation did not imply that placement data were to be the sole determinant of program offerings. However, the legislation, together with the reports from the House and the Senate, does seem to suggest that the ability of students from particular programs to find jobs would be a factor in deciding which programs to support. Thus, the legislation is seeking to influence program offerings with process requirements. With this scenario in mind, it is appropriate to ask whether the evaluations have had the intended effect.

The answer to the first question is "yes," but not exactly in the way Congress envisioned. Evaluation results are being used to revise programs, but not according to the expected scenario. That is the results used came not from student placement but from the findings of program reviews, a process called for in the regulations but not in the legislation. Usually this process involves a visit by some external review team either nominated by or composed of State administrators. Program strengths and weaknesses are noted and communicated to the local institutions,

followed by varying (depending on the State) amounts of assistance or monitoring to ensure that revisions are made. This is a comfortable role and function for States to assume and locals to accept. The types of program revision made, of course, depends upon the type of items investigated in the review. In most States, the review team investigates topics such as quality of equipment and facilities or whether teachers are certified, and suggests improvement within these areas. Programmatic revisions based on this information, while useful, do little to further Congress' purpose in requiring evaluation, which is to bring programs offered more in line with labor market conditions. A few States ask as part of program reviews how the institution decided which programs to support. Some States ask further whether student placement data were used to arrive at these decisions. This is closer to the legislative purpose. The review team can ask about the bases upon which planning decisions are made and can ensure that labor market demand figures heavily in the considerations. A few States, also, investigate as part of their program reviews other topics of concern to Congress, such as whether the needs of special populations are being met or what is being done to increase access to women and minorities. Since locals are accustomed to being reviewed by the State and making revisions based on the reviewers' comments, this is a process that could be used to give Federal concerns a wider dissemination and emphasis.

While the legislation is clear that the major use of evaluation is for local program improvement, it also calls for a second use--national reporting. Student placement data collected locally are entered into the

VEDS system and aggregated at the State and Federal levels to form a national picture. It is worth noting that the degree of statistical rigor and the need for compatability of data are greater for this use than for the program planning-program improvement uses. Data collected at the local level and aggregated first across districts and then across States must be compatible from place to place. Definitions of terms (such as completer, leaver, related to training) must be constant, and the sampling procedure used must be consistent. These requirements do not hold with the same rigor for data used for program improvement purposes within a given district. Furthermore, the requirement for one purpose may be in conflict with requirements for another. For example, a sample of school programs must be random to serve the needs of national reporting; on the other hand, a non-random group of the schools or programs most in need of improvement might be preferred for program improvement purposes.

Since one evaluative process may not be able to meet all needs, it may be necessary for policymakers at the Federal and State levels to review the potential use of evaluation--for program improvement at the local level, for planning and funding decisions at the State level, for producing national data--and make choices among strategies to emphasize particular uses.

The tension between evaluation for program improvement at the local level and evaluation for national reporting is by no means unique to vocational education. The authorizing legislation for other programs carries with it a requirement to evaluate. For example, Title I

of ESEA has required program evaluations since its inception in 1965. The legislative history of ESEA reflects a strong congressional interest in obtaining evaluation information that is useful for program improvement at the local level, but evaluative information has also been used for reporting purposes at the national level. The tension between conflicting demands of data at two levels has been noted and the way in which Title I evaluations were used at the local level has been investigated.[19] The investigation found that the primary function the evaluations serve has been to meet Federal and State reporting requirements; evaluations have not served primarily as a means of judging the program or as a guide for program improvement.

The lesson is not only that one evaluation process may not be able to serve all needs, but also that choices may have to be made among the various uses of evaluation and that those chosen uses must be properly emphasized at the Federal and State levels to ensure their realization. If program improvement is the prime goal, this must be emphasized, even at the expense of gathering national data.

The uses just described are not the primary ones envisioned by the legislation. Rather, the legislation calls for a collection of student placement and employer satisfaction data, and intends for these to be one factor in deciding program offerings. Student placement data are indeed collected, but are by and large not used to determine program offerings. The reasons for this are provocative and important.

One reason is that the decision-making process is a political one. Decisions on whether to continue a program are influenced by community pressure, student demand, presence of a tenured teacher, and, to a lesser degree, by data. In fact, at the secondary level, student demand is likely to be the primary determinant of program offerings.[20] In calling for student placement data and in encouraging their use in program planning, Congress is superimposing a rational process on a political one. The effects of the rational process are apt to be at the margins. Federal requirements can and do affect activity locally, but they cannot transform the whole enterprise.

A second reason for limited use of placement rates in determining program offerings has to do with the appropriateness of the criteria. At the State level, placement rates are not appropriate as the sole determinant of which districts or schools a State should support. Low placements can indicate either that a given school is preparing students poorly or merely that the school is in an economically depressed area. Obviously, one would not want placement rates to lead to a decision adversly affecting the latter school. Placement rates can, however, signal problems to State administrators, who can then give the situation a closer look. Placement rates at the program level within a school or district are more telling figures, but still only signal a problem and do not reveal its source. All students who stay in the area are presumably similarly influenced by its economic condition. Lower-than-average placement rates for a given program under these conditions may indicate one of three problems: that the program is not in tune

with the labor market needs of the area, that the program is of poor quality, or that the program has larger-than-average enrollment of disadvantaged, handicapped, and other hard-to-place students. Given that low placement rates may be caused by a variety of conditions, the remedies likewise vary. For this reason, programmatic decisions should not flow automatically from a placement rate. Furthermore, the fear on the part of vocational educators that rigid insistance on placements might set up pressures to exclude the hard-to-place is real.

In short, student placement rates are indeed a useful piece of information to inform program planning, if they are used sensibly. Used in isolation, they may give misleading results; used in conjunction with other information, they richly inform the planning process.

FOOTNOTES

1. U.S. General Accounting Office. What is the Role of Federal Assistance for Vocational Education? Comptroller General's Report to Congress. (Washington, DC: U.S. Government Printing Office, December 1974).

2. U.S. Congress, House, Committee on Education and Labor, The Vocational Education and National Institute of Education Amendments of 1976: Report to Accompany H.R. 12835, House Report No. 94-1085, 94th Cong., 2nd Sess., May 4, 1976, p.20.

3. U.S. General Accounting Office, cited in House Report, op. cit., pp. 20-21.

4. The major portion of the research for this study was conducted before the creation of the Department of Education, at a time when responsibility for vocational education rested with the Bureau of Occupational and Adult Education (BOAE). For this reason these titles, rather than the current ones--Department of Education and Office of Vocational and Adult Education (OVAE)--are used throughout this paper.

5. U.S. General Accounting Office, cited in House Report, op. cit., pp. 20-21.

6. Drewes and Katz, cited in House Report, op. cit., p. 21.

7. In addition, the Comisioner of Education was required to conduct yearly analyses of each State's plan and accountability report, including "suggestions for improvements in the State's programs (Sec.112(a)(1)); and the Bureau of Occupational and Adult Education was required to conduct a review of "strengths and weaknesses" of federally assisted programs in at least 10 States a year. (These are known as MERC/Q--Management Evaluation Review for Compliance/Quality.) Other requirements for evaluation in the Act include those charging the National and State Advisory Councils for Vocational Education with conducting independent evaluations of vocational education programs, services and activities. This chapter presents only a discussion on the effects of the requirements for State evaluations.

8. House Report, op. cit., p. 38.

9. House Report, op. cit., p. 38, states:

> The present Act encourages States to conduct periodic evaluations of local programs and to use these evaluations in revising their programs. The Committee's hearings showed that this provision seem to be having little effect.
>
> The Committee's bill (Section 108), therefore, contains new requirements concerning evaluation of programs. Specifically, within the three-year period of the State plan each program within a State receiving assistance under the Act must be evaluated as to its effectiveness. The evaluations must be used to revise the State's programs and a summary of them must be submitted to the Federal government.

10. J. F. Jennings and C. W. Radcliffe, Commentary on Legislation Affecting Vocational Education Research and Development. (Columbus, Ohio: The National Center for Research in Vocational Education, March 1977), p. 7.

> In answering a question on why the particular criteria were chosen, one of the authors states:
>
> > The crux of the matter is "how do you tell whether a program should be retained or dropped and whether a program is successful or not."
> >
> > When you attempt to answer these questions, the fundamental criteria must be job placement in jobs for which an individual is prepared or in a closely related job area. The next logical criteria relates to a person's perception of whether or not he/she was well prepared for the job and whether or not he/she was satisfied with the area for which he/she was prepared. Third, one must consider the employer's perception of whether the vocational program is worthwhile from his/her point of view. That perhaps is

the critical measure. Thus we selected those criteria that should be the very essence of what you would base a judgment as to whether a program should be added, dropped or maintained.

11. Federal Register, vol. 42, no. 191. October 3, 1977, Sec. 104.402.

12. Examples of such projects are the manuals and handbooks developed by the National Center for Research in Vocational Education under its contract with BOAE. There have been 13 such handbooks, among them:

    Evaluation Handbook Volume I: Guidelines and Practices for Follow-up of Former Vocational Students;

    Evaluation Handbook Volume II: Guidelines and Practices for Follow-up Studies of Special Populations;

    Vocational Education Outcomes: Perspective for Education;

    Guidelines and Practices for Measuring Employer Satisfaction with Former Vocational Students' Training.

13. A study by the National Advisory Council for Vocational Education also found that OE's assistance "had not been developed to its potential." National Advisory Council for Vocational Education, A Study of the Administration, Operations and Program Services of Vocational-Technical Education. Executive Summary. (Washington, D.C.: U.S. Office of Education, Bureau of Occupational and Adult Education, December, 1978), p. 9.

14. "Policy Memorandum." BOAE DSVPO - FY 79-2

15. Work performed under contract by CRC Education and Human Development, Inc.

16. Information was obtained from the case studies in 15 States by Abt Associates, Inc.

17. T. L. Wentling and W. E. Piland, A Study of Local Evaluation Practices in Vocational Education. (A paper presented at the American Vocational Association Convention. New Orleans, Louisiana, December 1980).

18. J.F. Jennings and C.W. Radcliffe, op. cit. p. 7.

19. Jane L. David, Local Uses of Title I Evaluations. Report to the Office of the Assistant Secretary for Planning and Evaluation, HEW. (Menlo Park, California: SR 1 Project URU - 6854, July, 1978).

20. H. Starr C. Maurice, H. Merz, and G. Zahniser, Coordination in Vocational Education Planning: Barriers and Facilitators. (Columbus, Ohio: The National Center for Research in Vocational Education, 1980), p. 22.

References

Beuke, Vernon L., Lukas, Carol VanDeusen, Brigham, Nancy, Glick, Georgia, and Breen, John P. Implementation of the Education Amendments of 1976: A Study of State and Local Compliance and Evaluation Practices in Vocational Education. Cambridge: Massachusets: Abt Associates, Inc., December, 1980.

David, Jane L. Local Uses of Title I Evaluations. Report to the Office of the Assistant Secretary for Planning and Evaluation, HEW. SRI Project URU-6854. Menlo Park, California, July 1878

Drewes, D.W. and Douglas S. Katz. Manpower Data and Vocational Education: A National Study of Availability and Use. Raleigh, N.C.: Center for Occupation Education, North Carolina State University, 1975.

Jennings, John F. and Charles W. Radcliffe. Commentary on Legislation Affecting Vocational Education Research and Development. Occasional Paper no. 27. Columbus, Ohio: The National Center for Research in Vocational Education, March 1977.

National Advisory Council for Vocational Education (NACVE) A Study of Administration, Operation and Program Services of Vocational-Technical Education. Executive Summary. The Bureau of Occupational and Adult Education. U.S. Office of Education, December 1978.

Smith, Ester Gottlieb and Nancy Holt. State of the Art of Vocational Education Evaluation: State Evaluation Porcedures and Practices. Belmont Mass. CRC Education and Human Development, Inc., January 1979.

U.S. Congress, House of Representatives. The Vocational Education and National Institute of Education Amendments of 1976. Report to Accompany H.R. 12835, Reprort No. 94-1085, 94th Congress 2nd Session, May 4, 1976.

U.S. Department of Health, Education and Welfare. Vocational Educatien, State Programs and Commissioner's Discretionary Programs. Rule and Regulations, Federal Register. Monday, October 3, 1977.

U.S. General Accounting Office. What is the Role of Federal Assistance for Vocational Education? Report of the Comptroller General to Congress. Washington, DC: U.S. Government Printing Office, December 1974.

U.S. Office of Education. Bureau of Occupational and Adult Education. POLICY MEMORANDUM-BOAE DSVPO -- FY79-2 on Evaluation. Requirements for Section 112 of P.L. 94-482, April 24, 1979.

* U.S.G.P.O. 726-062/1302-1258